Turners & Woodturning:

by David Heim

Turn an Inside-Out Ornament

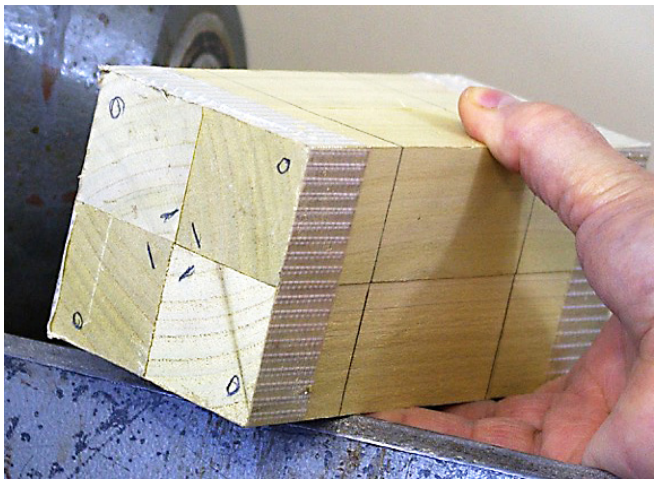
How to transform rubbish into rarities in seven simple steps.

Here's an easy holiday project: A tree ornament turned both inside and out. It's a good way to use up scraps in the shop and practice some new finishing techniques.

Begin With Good Stock

Mill some dry, straight-grained hardwood so you have four pieces measuring 1-1/2" square and at least 6" long. The exact dimensions aren't critical. You can make the pieces less than 1-1/2" square, or go longer. The thinner the wood and the longer the pieces, the skinnier the ornament will be. However, take the time to make the wood square, flat and uniform. You don't want gaps showing in the finished ornament.

Let the wood you choose determine the finish you use. Plain woods such as maple or poplar lend themselves to paint and gilding. Gild the inside and paint the outside, or vice versa. If you use nice quilted maple or a tropical hardwood with strong grain and figure, opt for a clear finish all over. Or, gild the inside of the ornament and put a clear finish on the outside. There's more detail about finishing at the end of the article.



(Fig. 1) Tape together four identical pieces. Mark the inside and outside corners on the end-grain, as well as the ends of a large cove around the cutting faces.

Bundle & Mark

Gather the pieces together and secure them at each end. Some people use dabs of hot glue plus blue tape; others use double-stick tape. I prefer fiberglass-reinforced strapping tape.

Rather than try to hold the pieces in a vise, I corral them with a big hose clamp. This allows me to tweak the pieces so the ends are flush. I then bind them with two or three layers of tape.

Before mounting the piece on the lathe, mark each piece to identify the inside and outside corners. This is good insurance to prevent misalignment of the pieces later in the process. Also draw lines on all four sides to mark the ends of the cove; this helps you start the cut (Fig. 1).

(Fig. 2) Carefully make V-cuts with the point of a skew to establish the ends of the cove.

Turn the Inside

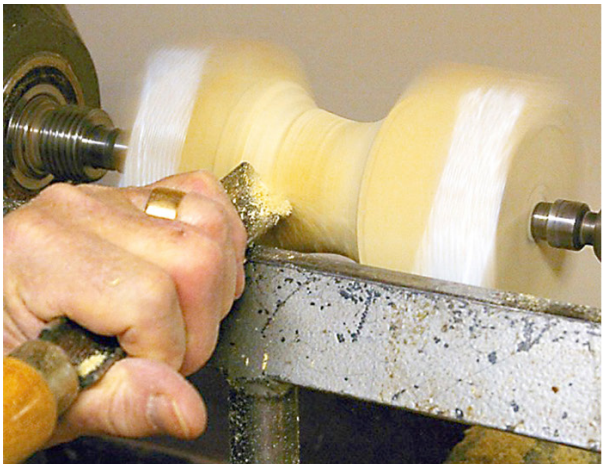
Mount the taped-up blank between centers. I use a stebcenter in the headstock and a cup center in the tailstock. Alternatively, you can use a spur center in the headstock. I suggest that you cut shallow kerfs at the bandsaw along the edges of the four blanks to give the spurs something to bite into.

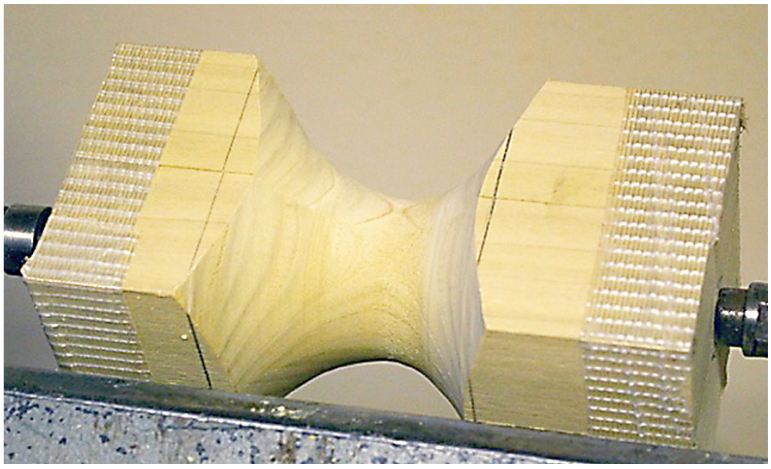
Get the blank centered on the headstock and draw up the tailstock so that the point of the cup center just fits into the spot where the blanks meet. Turn on the lathe at a fairly slow speed and advance the tailstock until the blank spins. This ensures the material runs true.

Use the point of a skew chisel to mark the ends of the cove, then make the cut deeper by coming in from the center toward each end with the skew. This helps prevent chipout at the ends of the cove (Fig. 2).

Switch to a sharp 1/2" spindle gouge or a 3/4" spindle-roughing gouge to shape a cove in the blank. Avoid cutting the cove dead-center; keep it more toward the headstock end of the blank.

The deeper you go, the more of the inside you will see in the finished ornament. Be sure the ends of the cove are crisp, with no tear-out (Fig. 3).



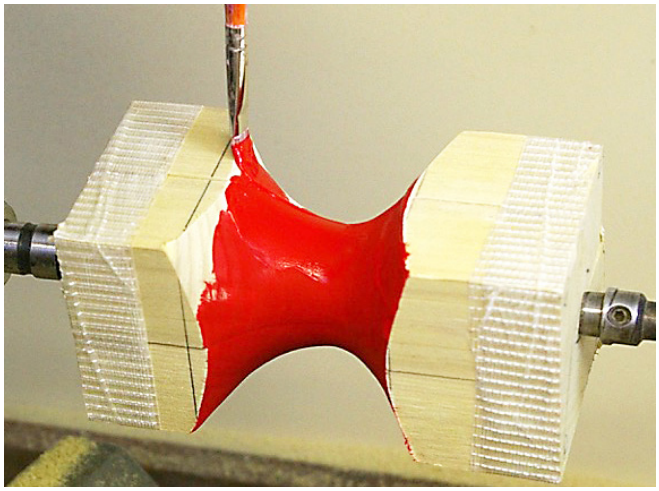


(Fig. 3) Use a spindle gouge to cut the cove. Work carefully at the ends to keep the edges crisp, with no tearout.

When you're satisfied with the shape, sand the cove to at least #220 grit. Sanding to #400 or even #600 grit is fine.

Apply a Finish

Here, I've coated the cove with a bright red acrylic paint (Fig. 4). You could use milk paint, dye, or even high-gloss latex enamel instead. After applying the color, I give it a coat of spray lacquer – high-gloss is my choice.



(Fig. 4) Apply finish, clear or a color, to the cove.

If you want to go clear (sans paint), use lacquer, friction polish, a mixture of mineral oil and beeswax, or thin coats of shellac. Those finishes go on quickly and dry fast.

Whether you use a color or a clear finish, buff the surface with paste wax applied with #0000 steel wool.

Dismount, Flip & Glue

When the finish is dry, remove the blank from the lathe and peel off the tape. Hold the bundle in the middle and carefully rotate each piece 180° – the outside corners are now at the center and the inside corners are at the outside (Fig. 5).

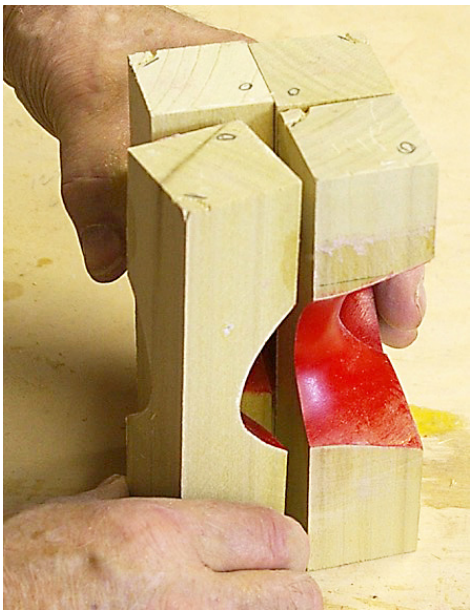
Glue the pieces together, two at a time. This helps keep the ends flush. You can use yellow glue or a cyanoacrylate. Be neat with the glue. Keep it off the finished areas. Clamp the pieces and allow the glue to cure.

Turn the Outside

For this part of the project, be sure your tools are good and sharp. Remount the blank between centers on the lathe. Turn the ends round and cut a tenon at the headstock end.

Remount the blank again, this time holding the tenon in a scroll chuck. Continue to support the work with the cup center in the tailstock.

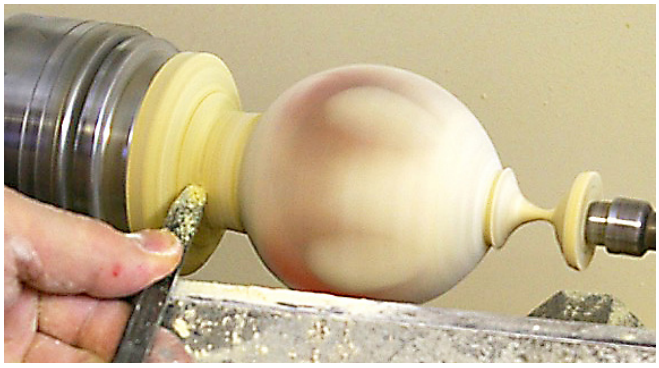
Use a spindle gouge to true up the blank along its length, then begin shaping the outside of the ornament. Keep the lathe speed high and take light cuts. You'll be cutting air four times on each revolution, as the four gaps pass by the tool. It's better to avoid having tearout along the edge of the gaps (Fig. 6).



(Fig. 5) Rotate each piece 180° so the outside corners meet at the center. Glue the pieces together.

Shape the outside of the ornament around the area of the cove. Here, you're just rolling a large bead with the gouge. Once you have that part of the ornament shaped to your liking, refine the shape at the tailstock end. You can taper the ornament to a point, or turn a birds-beak detail and then taper to a point. Come back to the headstock end and refine that shape.

Check your progress frequently to be sure you have nice, crisp edges along the gaps. When you get close, use sandpaper to finish the shaping to avoid breaking the ornament. Work through the grits to at least #220 grit.



Carefully cut the ornament free at the tailstock end. Support the ornament with your free hand and part it off at the headstock end (Fig. 7, next page)

Trim and sand the ends as needed once you have the ornament off the lathe. Drill a hole in the headstock end and install a small brass screw eye with a drop of cyanoacrylate or epoxy.

(Fig. 6) Shape the outside, working carefully over the voids in the center.

(Fig. 7) The turning complete and the ornament parted off.

Finish the Finish

If you're using a clear finish, hold the ornament by the screw eye and apply the finish carefully to the outside.

For the ornament shown here, I've gilded the outside with mica powder, which is a very fine metallic powder that you can find at craft stores or from gilding-supply companies online. It's inexpensive and very easy to apply. Alternatively, you could use gold or silver leaf or gilder's wax.

Carefully brush on a coat of size, a varnish-like coating that will hold the mica powder or leaf. When the size is slightly tacky, it's ready. (Touch your knuckle to the size and pull it away; listen for a faint "thwack," like the sound of your tongue clicking on the roof of your mouth.)

Dip a clean, dry, soft-bristle artist's brush into the mica powder and brush it over the size. A little powder goes a very long way. Coat the outside of the ornament uniformly (Fig. 8).

Gently buff the gilding with a soft cloth or a cotton ball. Apply a coat of sealer to protect gilding. Finally, rub on a coating of paste wax then buff it to a nice sheen. Your ornament is ready to hang on the tree.

(Fig. 8) Coat the outside with a varnish size, then carefully brush on gold mica powder.

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